

Sheet 1 of 1

Art Unit: 1802

Examiner: S. Ziska

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/Subclass	(If appropriate) Filing Date
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Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/Subclass	(If appropriate) Filing Date
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1. SE WO 92/03918 19/03/92 PCT

Ref. Desig.	Examiner's Initials
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Date Considered: 7/31/92

1449



FORM PTO-1449 (Modified)  
LIST OF PATENTS AND PUBLICATIONS  
FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)  
Sheet 1 of 1

In the Application of

Kucherlapati et al.

Serial No. 07/922,649

Filed: 7/30/92

Art Unit: 1804

Examiner: S. Ziska

U.S. PATENT DOCUMENTS

<u>Ref. Desig.</u>	<u>Examiner's Initials</u>	<u>Document Number</u>	<u>Date</u>	<u>Name</u>	<u>Class/Subclass</u>	<u>(If appropriate) Filing Date</u>
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FOREIGN PATENT DOCUMENTS

<u>Ref. Desig.</u>	<u>Examiner's Initials</u>	<u>Document Number</u>	<u>Date</u>	<u>Country</u>	<u>Class/Subclass</u>	<u>(If appropriate) Filing Date</u>
	<u>SZ</u>	WO 92/03918	19 March 1992	PCT		
		WO 90/04036	19 April 1990	PCT		
		322240	28 June 1989	EPO		

Examiner:

*S. Ziska*

Date Considered:

*7/31/97*

EXAMINER: Initial if citation considered whether or not the citation conforms with MPEP609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



FORM PTO-1449 (Modified)  
LIST OF PATENTS AND PUBLICATIONS  
FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)

Sheet 2 of 2

In the Application of

Kucherlapati et al.

Serial No. 07/922,649

Filed: 7/30/92

Art Unit: 1804

Examiner: S. Ziska

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref. Desig.	Examiner's Initials	
1.	SE	Thomas et al.; Cell, Vol. 51:503-512 (1987); Site-Directed Mutagenesis by Gene Targeting in Mouse Embryo-Derived Stem Cells
2.		Koller et al.; Proc. Natl. Acad. Sci. USA, Vol 86:8932-8935 (1989); Inactivating the $\beta_2$ -microglobulin locus in mouse embryonic stem cells by homologous recombination
3.		Berman et al.; EMBO Journal, 7(3):727-738 (1988); Content and Organization of the human Ig V <sub>H</sub> locus: definition of three new V <sub>H</sub> families and linkage to the Ig C <sub>H</sub> locus
4.		Burke et al.; Science, 236:806-812 (1987); Cloning of Large Segments of Exogenous DNA into Yeast by Means of Artificial Chromosome Vectors
5.		Garza et al.; Science 246:641-646 (1989); Mapping the Drosophila Genome with Yeast Artificial Chromosomes
6.		Brownstein et al.; Science 244:1348-1351 (1989); Isolation of Single-Copy Human Genes from a Library of Yeast Artificial Chromosome Clones
7.		Sakano et al.; Nature 290:562-565 (1981); Identification and Nucleotide Sequence of a Diversity DNA Segment (D) of Immunoglobulin Heavy-Chain Genes
8.		Tucker et al.; Proc. Natl. Acad. Sci. USA 78(12):7684-7688 (1981); Mouse IgA Heavy Chain Gene Sequence: Implications for Evolution of Immunoglobulin Hinge Exons
9.		Blankenstein and Kruwink; Eur. J. Immunol. 17:1351-1357 (1987)

Examiner:

*S. Ziska*

Date Considered: 7/31/92

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| 10. | SE | Joyner et al.; Nature 338:153-155 (1989)  |
| 11. |    | Traver et al.; Proc. Nat. Acad. Sci. USA 86:5898-5902 (1989)  |
| 12. |    | Panchis et al. Proc. Nat. Acad. Sci. USA 87:5109-5113 (1990)  |
| 16. |    | Bruggemann et al.; Proc. Natl. Acad. Sci. USA 86:6709-6713 (1989); A Repertoire of Monoclonal antibodies with Human Heavy Chains from Transgenic Mice         |
| 17. |    | Buttin G.; Trends in Genetics 3(8):205-206 (1987); Exogenous Ig Gene Rearrangment in Transgenic Mice: A New Strategy for Human Monoclonal Antibody Production |
| 18. |    | Yancopoulos et al.; Science 241 1581-1583 (1988); Reconstruction of an Immune System  |

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7/31/92

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FORM PTO-1449						U.S. Department of Commerce						ATTY. DOCKET NO. A 55172-2/BIR						SERIAL NO. 07/919,297															
INFORMATION DISCLOSURE STATEMENT																		APPLICANT Kucherlapati and Jacobovits															
(Use several sheets if necessary)																		FILING DATE July 24, 1992						GROUP 1804									
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598		AA		Thomas and Capeocchi (1987) Cell 51:503-512.																													
		AB		Pachnis, et al. (1990) P.N.A.S. 87:5109-5113.																													
		AC		Traver, et al. (1989) P.N.A.S. 86:5898-5902.																													
		AD		Joyner, et al. (1989) Nature 338:153-155.																													
		AE		Blankenstein and Kruwinkel (1987) Eur. J. Imm. 17:1351-1357.																													
		AF		Tucker, et al. (1981) P.N.A.S. 78:7684-7688.																													
		AG		Sakano, et al. (1981) Nature 290:562-565.																													
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FORM PTO-1449 (Modified)  
LIST OF PATENTS AND PUBLICATIONS  
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(Use several sheets if necessary)  
Sheet 1 of 5

In the Application for  
R. KUCHERLAPATI, ET AL.

Serial No. 08/031,801

Filed: 15 March 1993

Art Unit: Unknown

Examiner: Unknown

U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/Subclass	(If appropriate) Filing Date
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FOREIGN PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/Subclass	(If appropriate) Filing Date
AA		WO 91/10741		PCT		

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref. Desig.	Examiner's Initials	
AB	SCJ	Thomas, et al., "Site-Directed Mutagenesis by Gene Targeting in Mouse Embryo-Derived Stem Cells" (1987) <i>Cell</i> 51:503-512.
AC		Koller, et al., "Inactivating the $\beta_2$ -microglobulin locus in mouse embryonic stem cells by homologous recombination" (1989) <i>Proc. Nat'l. Acad. Sci.</i> 86:8932-8935.

Examiner: A. J. [Signature]

Date Considered: 7/21/97

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Sheet 2 of 5

In the Application of

R. KUCHERLAPATI, ET AL.

Serial No. 08/031,801

Filed: 15 March 1993

Art Unit: Unknown

Examiner: Unknown

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref. Desig.	Examiner's Initials	
AD	SEB	Berman, et al., "Content and organization of the human Ig V <sub>H</sub> locus: definition of three new V <sub>H</sub> families and linkage to the Ig C <sub>H</sub> locus" (1988) <i>EMBO J.</i> 7:727-738.
AE		Burke, et al., "Cloning of Large Segments of Exogenous DNA into Yeast by Means of Artificial Chromosome Vectors" (1987) <i>Science</i> 236:806-812.
AF		Garza, et al., "Mapping the <i>Drosophila</i> Genome with Yeast Artificial Chromosomes" (1989) <i>Science</i> 246:641-646.
AG		Brownstein, et al., "Isolation of Single-Copy Human Genes from a Library of Yeast Artificial Chromosome Clones" (1989) <i>Science</i> 244:1348-1351.
AH		Sakano, et al., "Identification and nucleotide sequence of a diversity DNA segment (D) of immunoglobulin heavy-chain genes" (1981) <i>Nature</i> 290:562-565.
AI		Tucker, et al., "Mouse IgA heavy chain gene sequence: Implications for evolution of immunoglobulin hinge exons" (1981) <i>Proc. Nat'l. Acad. Sci.</i> 78:7684-7688.
AJ		Blankenstein, et al., "Immunoglobulin V <sub>H</sub> region genes of the mouse are organized in overlapping clusters" (1987) <i>Eur. J. Immunol.</i> 17:1351-1357.
AK		Joyner, et al., "Production of a mutation in mouse En-2 gene by homologous recombination in embryonic stem cells" (1989) <i>Nature</i> 338:153-155.

Examiner:

Date Considered:

2/3/97

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FORM PTO-1449 (Modified)  
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Sheet 3 of 5

In the Application of  
R. KUCHERLAPATI, ET AL.

Serial No. 08/031,801

Filed: 15 March 1993

Art Unit: Unknown

Examiner: Unknown

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref. Desig.	Examiner's Initials	
AL		Traver, et al., "Rapid screening of a human genomic library in yeast artificial chromosomes for single-copy sequences" (1989) <i>Proc. Nat'l. Acad. Sci.</i> 86:5898-5902.
AM		Pachnis, et al., "Transfer of a yeast artificial chromosome carrying human DNA from <i>Saccharomyces cerevisiae</i> into mammalian cells" (1990) <i>Pro. Nat'l. Acad. Sci.</i> 87:5109-5113.
AN		Brüggemann et al., "A repertoire of monoclonal antibodies with human heavy chains from transgenic mice" (1989) <i>Proc. Nat'l. Acad. Sci.</i> 86:6709-6713.
AO		Brüggemann et al., "Construction, Function and Immunogenicity of Recombinant Monoclonal Antibodies" (1990) <i>Behring Inst. Mitt.</i> 87:21-24.
AP		Brüggemann et al., "Human antibody production in transgenic mice: expression from 100 kb of the human IgH locus" (1991) <i>Eur. J. Immunolog.</i> 21:1323-1326.
AQ		Albertsen et al., "Construction and characterization of a yeast artificial chromosome library containing seven haploid human genome equivalents" (1990) <i>Proc. Nat'l. Acad. Sci.</i> 87:4256-4260.
AR		Pavan et al., "Modification and Transfer into an Embryonal Carcinoma Cell Line of a 360-Kilobase Human-Derived Yeast Artificial Chromosome" (1990) <i>Mol. and Cell. Biol.</i> 10(8):4163-4169.

Examiner:

Date Considered:

2/3/92

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Sheet 4 of 5

In the Application of

R. KUCHERLAPATI, ET AL.

Serial No. 08/031,801

Filed: 15 March 1993

Art Unit: Unknown

Examiner: Unknown

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref.  
Desig.

Examiner's  
Initials

AS	SEY	Gnirke et al., "Cloning and <i>in vivo</i> expression of the human GART gene using yeast artificial chromosomes" (1991) <i>EMBO Journal</i> 10(7):1629-1634.
AT		Eliceiri et al., "Stable integration and expression in mouse cells of yeast artificial chromosomes harboring human genes" (1991) <i>Proc. Nat'l. Acad. Sci.</i> 88:2179-2183.
AU		Huxley et al., "The Human HPRT Gene on a Yeast Artificial Chromosome Is Functional When Transferred to Mouse Cells by Cell Fusion" (1991) <i>Genomics</i> 9:742-750.
AV		Mortensen et al., "Production of Homozygous Mutant ES Cells with a Single Targeting Construct" (1992) <i>Mol. and Cell. Biol.</i> 12(5):2391-2395.
AW		Davies et al., "Targeted alterations in yeast artificial chromosomes for inter-species gene transfer" (1992) <i>Nucl. Acids Res.</i> 20:2693-2698.
AX		Zachau, "The Human Immunoglobulin $\kappa$ Locus and Some of its Acrobatics" (1990) <i>Biol. Chem.</i> 371:1-6.
AY		Matsuda et al., "Structure and physical map of 64 variable segments in the 3' 0.8-megabase region of the human immunoglobulin heavy-chain locus" (1993) <i>Nature Genetics</i> 3:88-94.

Examiner:

*[Signature]*

Date Considered:

7/31/92

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### In the Application of

R. KUCHERLAPATI, ET AL.

**Serial No. 08/031,801**

Filed: 15 March 1993

**Art Unit: Unknown**

**Examiner: Unknown**

**OTHER DOCUMENTS** (including Author, Title, Date, Pertinent Pages, etc.)

Ref.	Examiner's
Desiq.	Initials

**AZ**

53

Shin et al., "Physical map of the 3' region of the human immunoglobulin heavy chain locus: clustering of autoantibody-related variable segments in one haplotype" (1991) *EMBO* 10:3641-3645

**Examiner:**

**Date Considered:**

7/31/97

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## SUPPLEMENTAL LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)



ATTY. DOCKET NO.

7639-033-999

SERIAL NO.

08/234,145

APPLICANT

Raju Kucherlapati, *et al.*

FILING DATE

April 28, 1994

GROUP

1804

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	N/A					

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
SCJ	AA WO 91/00906	01-24-91	PCT				
SCJ	AB EP 315,062	5-10-89					

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

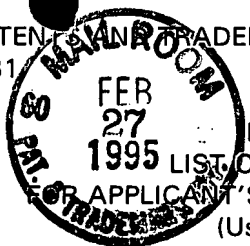
SCJ	AC	Capecchi <i>et al.</i> , 1989, "Altering the Genome by Homologous Recombination," <u>Science</u> <b>244</b> (16):1288-1292.
	AD	James <i>et al.</i> , 1987, "Human monoclonal antibody production: current status and future prospects," <u>Journal of Immunological Methods</u> <b>100</b> :5-40.
	AE	Bruggemann <i>et al.</i> , 1991, "Human antibody production in transgenic mice: expression from 100db of the human IgH locus," <u>European Journal of Immunology</u> <b>21</b> :1323-1326.
	AF	Lenz <i>et al.</i> , 1990, "Expression of heterobispecific antibodies by genes transferred into producer hybridoma cells," <u>Gene</u> <b>87</b> :213-218.
	AG	Mansour <i>et al.</i> , 1988, "Disruption of the proto-oncogene int-2 in mouse embryo-derived stem cells: a general strategy for targeting mutations to non-selectable genes," <u>Nature</u> <b>336</b> :348-352.

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DATE CONSIDERED

2/3/92

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Sheet 1 of 2

In the Application of

Raju Kucherlapati et al.

Serial No. 08/234,145

Filed: 28 April 1994

Art Unit: 1806

Examiner: Unassigned

U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/Subclass	(If appropriate) Filing Date
1.	SEY	4,959,313	25 Sept. 1990	Taketo		
2.	SEY	4,950,599	21 Aug. 1990	Bertling		

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MAR 21 1995  
GROUP 1806

FOREIGN PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/Subclass	(If appropriate) Filing Date
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OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

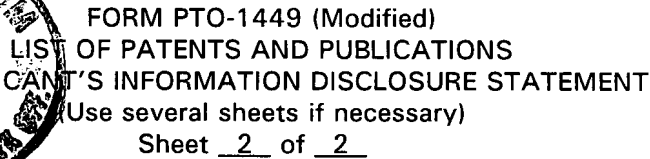
Ref. Desig.	Examiner's Initials	
3.	SEY	Yamaura et al., "Cell-Type-Specific and Regulated Expression of a Human $\gamma$ 1 Heavy-Chain Immunoglobulin Gene in Transgenic Mice", <i>Proc. Natl. Acad. Sci., USA</i> 83:2152-2156 (1986).
4.	SEY	Ayares et al., "Sequence Homology Requirements for Intermolecular Recombination in Mammalian Cells", <i>Proc. Natl. Acad. Sci. USA</i> 83:5199-5203 (1986).

Examiner:

Date Considered:

2/31/97

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## Date Considered:

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Examiner: Unassigned

<b>Ref.</b>	<b>Examiner's</b>	<b>Document</b>				(If appropriate)
<b>Desig.</b>	<b>Initials</b>	<b>Number</b>	<b>Date</b>	<b>Name</b>	<b>Class/Subclass</b>	<b>Filing Date</b>

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**Examiner:**

**Date Considered:**

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